



Edited by Anastasia Gorelova

BGSA Newsletter

December 2016



Pitt BGSA



@PittBGSA

Upcoming Events

- End of Foundations Happy Hour (December 13th)
- Kiln'N'Time: pottery making workshop (January 12 & 26th)
- Annual Ski trip (January 28th)
- Software Tools for Designing Professional Scientific Posters and Figures (TBA)

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Letter from the President



Abby Stahl
ecs40@pitt.edu
BGS President,
2016-2017

Dear fellow students and faculty members,

The BGS is off to a great start for the 2016-2017 academic year! We welcomed our new first-year students during orientation week, complete with our annual Orientation Picnic in August. We also held our annual BGS council elections in mid-September, and have transitioned into new positions. I am pleased to introduce our new executive board and program representatives, which are listed below. In October, we hosted the annual BGS Research Symposium, a platform to showcase student research, recognize excellence, and foster communication. You can read more about the Symposium and other exciting past events in this newsletter.

Looking forward, the BGS is planning to sponsor several events that will bring together students from across the School of Medicine, including our annual End of the Year Happy Hour, Ski Trip, and a workshop on Software Tools for Designing Scientific Posters and Figures.

Visit the BGS website at www.bgsa.pitt.edu for continued updates on upcoming events, useful resources, and student accomplishments. Better yet, attend one of our monthly meetings, held on the first Monday of the month at 4:30pm to voice your concerns or ideas for future programming. Upcoming meetings will be on January 9 in BST 1295 and February 6 in Scaife 1105. Please contact me directly if you'd like to be added to our mailing list or have any questions. Happy Holidays!

BGS Representatives, 2016-2017

Executive Board


- **President:** Abby Stahl
- **VP of Records:** Paige Rudich
- **VP of Finance:** Lisa Jean Clark
- **VP of Communications:** Anastasia Gorelova
- **VP of University Relations:** Eileen Wong
- **VP of Programming:** Adolfo Frias

Program Representatives

- **IBGP First Year:** Christopher Chuckran and Nikki Naim
- **Cell Biology and Molecular Physiology:** Rachel Wills
- **Molecular Pharmacology:** Ryan Staudt and Eleanor Johnston
- **Cellular and Molecular Pathology:** Colin Beckwitt, Morgan Preziosi, and Anthony Otero
- **Immunology:** Aliyah Weinstein, Helen Rich and Hiroshi Yano
- **Molecular Genetics and Developmental Biology:** Fine Han and Daniel Zuppo
- **Molecular Virology and Microbiology:** Justin Wendzicki and Mondraya Howard
- **Integrated Systems Biology/PIMB:** Kate Shipman, Celestino Velasquez, and Ricardo DeMoya
- **Molecular Biophysics and Structural Biology:** Sara Whitlock and Stephen White
- **Biomedical Informatics:** Jose Posada
- **Neuroscience:** Sarah Najjar and Matt Rich
- **Computational Biology:** Jocelyn Sunseri
- **Clinical and Translational Sciences:** Alyce Anderson


Past Events

Orientation picnic



Aliyah Weinstein,
Immunology

On Wednesday, August 24th, the BGSA held its annual student orientation picnic to welcome the new class to the University of Pittsburgh. BGSA members arrived early to the Vietnam Veterans Pavillion in Schenley Park to fire up the grills and prepare for the arrival of the new students. The food was great, as were the refreshments, including sangria and craft beers from East End Brewery. This year we also served ice cream sandwiches from Leona's Ice Cream Sandwiches! Students enjoyed playing cornhole, volleyball, and other yard games. Overall, a great time was had by all, and we are excited to prepare for next year's picnic.



Greg Logan,
Pathology


After a few days of Orientation and several improvised meals from my newly inhabited kitchen I was glad to visit the BGSA Picnic. A short ride to the Vietman Veteran's Pavillion in Schenley Park gave way to a warm welcoming of baked beans and BGSA comradery.

At this event I chatted with some of my first friends from class and met upperclassmen throughout the interdisciplinary program. After laughing over more food than I could possibly eat, veggie burgers, beer, and lactose-free ginger-snickerdoodle ice cream sandwiches from Leona's I was glad I didn't miss such a perfect summer barbecue.



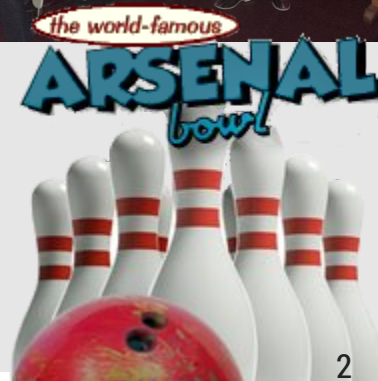
Nikki Naim, IBGP

Bowling Night



On the last Monday of November, BGSA hosted Bowling Night at Arsenal Lanes in Lawrenceville. Attendees from all years and different departments enjoyed the time away from lab for unlimited bowling! While people competed for number one bowler of the night, they also enjoyed the time to catch up with friends. Although the cook never made it the kitchen, people still got to enjoy finger food, dollar drafts, and a DJ taking song requests. To add to the laid-back mood of the night, some people choose bowling aliases such as Bowlinda. In the end, everyone bowled to their heart's content. Whether anyone kept score, it was a successful night filled with good company, laughter, and mostly friendly competition. We hope to continue Bowling Night in the years to come and to see even more of you there!

Adolfo Frias,
Immunology



BGSA Symposium



Augustin Cruz,
Immunology

The BGSA symposium 2016: An innovative and well-paced event.

This year's symposium was dynamic and innovative. Dynamic because we had all of our traditional symposium activities well organized to smoothly progress throughout the day. Dr. John Horn was pleased with the pace of the events of the day. The most important event of our symposium was the Nakada Memorial lecture given by Dr. Arpita Maiti from Pfizer. In addition to the Nakada lecture and the posters presentation, we had 7 students talk. **The Stephen L. Phillips award recipient lecture recognized the accomplishment of Nicole Scharping (IMM)** as the student publishing the best first-author paper of this year. Together with Nicole's talk, there were six other excellent talks from BGSA students: Emma He (Path.), Sherry Zhang (IMM), Anthony Cadena (IMM), Mike Ding (Biomed. Infor.), Ravi Patel (MVM), and Kevin Mastro (CNUP). This year's symposium had two innovations: the career panel and the mentorship talk. The first event aimed to engage our Nakada speaker in a more casual environment to ask questions about her career development. In this panel, we also had the participation of Dr. Louis D'Cruz, assistant professor from Immunology at Pitt, and Dr. Angela Pardee Coy, Regulatory Affairs Specialist at Mylan. The main piece of advice was to do a post-doctoral training even if we want to go out of academia. The second new activity was the presentation about mentorship given by this year's **Best Mentor award recipient, Dr. Patrick Pagano** from Pharmacology. Patrick told us about his experiences as trainee and mentor. Patrick's talk was stimulating showing that in science there is no one set path, but many options and opportunities. The effort of everyone involved in the planning and execution of the symposium made it into a great 2016 BGSA symposium. The students from the Immunology Training Program who organized this year's symposium are very thankful for the challenge. Good luck for next year.



Congratulations to BGSA symposium 2016 award recipients!

Stephen L. Phillips Award: Nicole Scharping (Imm.)
Most well-rounded student: Aliyah Weinstein (Imm.)
Best Mentor Award: Patrick J. Pagano (Pharm.)



BGSA Symposium Best Poster Award recipients.

From left to right: Nyla Naim (Pharm.), Lauren Kinner (Imm.), Augustin Cruz (Imm.), Rachel Wills (CBMP), Patrick Wilkinson (CMP), Manoj Chelvanambi (Imm.), Shelby Hemker (MGDB)

Not pictured: Rebekah Dadey (Imm.), Tiffany Bernardo (CMP), Anthony Lentscher (MVM), Jennie Vorhauer (CMP), Mehwish Khaliq (MGDB), Jia-Ying Lee (CMP), Shireen Attaran (Pharm.), Zhou Zhong (MVM), Nikita Trivedi (Imm.), Jose Posada (Biomedical Informatics).



Augustin Cruz and Dr Arpita Maiti (Pfizer), 2016 Nakada lecture honorary speaker



Dr John P Horn (Associate Dean for Graduate Studies, School of Medicine; Director, Interdisciplinary Biomedical Graduate Program) gives opening remarks at the Symposium



Uzodinma Uche (Immunology)



Sarah Najjar (Neuroscience)



Dr Patrick Pagano receives Distinguished Mentoring Award from previous recipient Dr Ora Weisz

Past Events

Kayaking trip

September 10th was a perfect morning to kayak and an even better morning to see Pittsburgh Pirates fans. Around the bustle of PNC stadium, the trip to “Kayak Pittsburgh” on the North Shore was regrettably scheduled on the same day as the Pitt-Penn State game. Nonetheless, after wading through the tailgaters pouring across the Roberto Clemente Bridge a solid group of 35 got to try their hands at kayaking under the clouds of barbecuing meats. A short lesson and life jackets were all we needed before hitting the water and we could get an open view of the Allegheny River. From where we started we could paddle all the way to The Point, wave to several motor-boaters, and take in numerous features of our downtown skyline. The pictures turned out fantastic and our arms were only as sore as we deserved them to be the next day.

Nikki Naim, IBGP



STEM Stars Saturday Academy



Lisa Clark, MBSB

On November 5, a group of BGSA members volunteered at Chatnam University for Carnegie Science Center’s STEM Saturday Academy! The Academy provides an opportunity for middle school girls in the Pittsburgh area to learn about STEM, life skills, and college life. BGSA taught the STEM activity, where the girls worked in groups to design and build a roller coaster using paper and cardboard tubes. The students used their desks to give height to their coaster. The girls also tested out their coasters using large and small marbles, with the goal of keeping each marble on the track throughout the entire “ride”. It was wonderful to see the girls’ creativity and enthusiasm for science as they built their coasters! The girls also learned about how roller coasters work and the concept of centripetal force.

Stay tuned for the dates for next semester’s STEM Saturday Academies - we are always looking for volunteers!

Please contact Aliyah Weinstein at alw151@pitt.edu for more information. We would love for you to join us!

Student Spotlight



Shireen Attaran
Molecular Pharmacology
PI: Neumann/Oesterreich

Shireen's accomplishments make her truly an exceptional student. From the outset it was obvious that her passion is with science and research. She works hard, is very smart and talented, and focuses on the long term goal of her project which allows her to overcome some of the frustrations of science. Besides her exceptional professionalism, she cares a lot about other areas of life and has recently started to give back to the community by joining the Pitt-Bridge program that teaches science to high school students from underserved areas in Pittsburgh. She committed to supervise students in a one-year project related to community health. To sum it up, Shireen is a great role model and, importantly, a fun young woman. We are very fortunate that she is part of our team. We all are very proud of her for being awarded a Howard Hughes Medical Institute-sponsored Gilliam Fellowship. Shireen truly deserves recognition as it reflects all her accomplishment as a young scientist and human being.

**Guillermo Romero, Vice Director,
Molecular Pharmacology Graduate Program**



Celestino Velasquez
ISB/PIMB
PI: Patrick Moore

Celestino has made foundational research on the fundamental mechanisms of protein translation during mitosis – a mechanism that may contribute to cancer cell transformation. In his initial work, he showed that cyclin dependent kinase 1 takes over from oncogenic mTOR to phosphorylate 4E-BP1, leading to an unexpected increase in protein synthesis during mitosis, and published in PNAS. He has gone on to show that 4E-BP1 is phosphorylated on a unique residue and developed phospho-specific antibodies to detect this isoform. He is first author on this paper, which also has been just accepted to PNAS. He is now characterizing the NCI60 cell line set to discover tumor types that preferentially express mitotic 4E-BP1. Celestino has shown tremendous scientific maturity and productivity, and by continuing on this track he will develop into a leading scientist in his field.

**Patrick Moore, Director,
Molecular Virology Program**

Travel Grants

Congratulations to Gerard Hernandez and Jonathon Heier, winners of BGSA Travel Awards!

Gerard studies the role of β -site APP-cleaving enzyme 1 (BACE1) in T cells, which has important implications for the treatment of autoimmune diseases. Gerard presented his research at the British Society for Immunology and Dutch Society for Immunology (BSI/NVVI) Annual Congress 2016.

Jonathon's research focuses on characterizing alpha-T-catenin and its role in cardiomyocyte adhesion, which is important for understanding congenital heart diseases. Jonathon presented his work at the American Society of Cell Biology 2016 Annual Meeting.

If you would like to be considered for the January Travel Award, please apply before January 2.

The BGSA will award one travel grant of \$250 per month to one eligible student within one of the School of Medicine's graduate programs. BGSA Travel Grants can be used to reimburse travel and lodging costs, and event-specific fees.

To learn more and to submit an application, please go to <http://www.bgsa.pitt.edu/travel-grants.html> or email BGSATravelGrants@gmail.com.

Recent Student Publications

CNUP

- **Zimmerman, E. C.**, & Grace, A. A. (2016). The Nucleus Reuniens of the Midline Thalamus Gates Prefrontal-Hippocampal Modulation of Ventral Tegmental Area Dopamine Neuron Activity. *The Journal of Neuroscience : the Official Journal of the Society for Neuroscience*, 36(34), 8977–8984.
- **Wright, WJ**, & Dong, Y. (2016). N-methyl-D-aspartate receptors: "C"ing the culprits behind cocaine-induced metaplasticity. *Biological Psychiatry*, 80(9): 644-646.
- **Wright, WJ**, Schlüter, OM, & Dong, Y. (2016) A feedforward inhibitory circuit mediated by CB1-expressing fast-spiking interneurons in the nucleus accumbens. *Neuropsychopharmacology*.
- **Weeks JJ**, Carlson LJ, Radabaugh HL, de la Tremblaye PB, Bondi CO, Kline AE. Intermittent treatment with haloperidol or quetiapine does not disrupt motor and cognitive recovery after experimental brain trauma. *Behave Brain Res* (In press, 2016).
- **Piantadosi SC**, French BJ, Poe MM, Timić T, Marković BD, Pabba M, Seney ML, Oh H, Orser BA, Savić MM, Cook JM and Sibille E (2016) Sex-Dependent Anti-stress Effect of an $\alpha 5$ Subunit Containing GABAA Receptor Positive Allosteric Modulator. *Front. Pharmacol.* 7:446.
- **Rupprecht LE**, Koopmeiners JS, Dermody SS, Oliver JA, al'Absi M, Benowitz NL, Denlinger R, Drobles DJ, Hatsukami D, McClernon FJ, Pacek LR, Smith TT, Sved AF, Tidey J, Vandrey R, Donny EC. (In Press). Reduction of nicotine exposure results in weight gain in smokers randomized to very low nicotine content cigarettes. *Tobacco Control*.
- **Rupprecht LE**, Smith TT, Schassburger RL, Donny EC, Sved AF. (2016). Effects of nicotine on reward varying in palatability and caloric value: implications for e-cigarette flavoring. *Tobacco Regulatory Science*, 2(4), 343-351.
- Smith TT, **Rupprecht LE**, Sved AF, Donny EC. (2016). Characterizing the relationship between increases in the cost of nicotine and decreases in nicotine content in adult male rats: implications for tobacco regulation. *Psychopharmacology*.

MGDB

- Godin, S.K., **M.R. Sullivan**, and K.A. Bernstein (2016) Novel insights into RAD51 activity and regulation during homologous recombination and DNA replication. *Journal of Biochemistry and Cell Biology*. 94:407-418.

Immunology

- Deschamps JD, Oguniola AF, Jameson JB 2nd, Yasgar A, **Flitter BA**, Freedman CJ, Melvin JA, Nguyen JV, Maloney DJ, Jadhav A, Simeonov A, Bomberger JM, Holman TR. Biochemical and Cellular Characterization and Inhibitor Discovery of *Pseudomonas aeruginosa* 15-Lipoxygenase. *Biochemistry*. 2016
- Hendricks MR, Lashua LP, Fischer DK, **Flitter BA**, Eichinger KM, Durbin JE, Sarkar SN, Coyne CB, Empey KM, Bomberger JM. Respiratory syncytial virus infection enhances *Pseudomonas aeruginosa* biofilm growth through dysregulation of nutritional immunity. *Proc Natl Acad Sci U S A*. 2016

Pharmacology

- Rogers NM, Sharifi-Sanjanai M, Yao M, Ghimore K, Bienes-Martinez R, **Mutchler SM**, Knupp HE, Baust J, Novelli EM, Ross M, St Croix C, Kuttel JC, Czajka CA, Sembrat JC, Rojas M, Labrousse-Arias D, Bachman TN, Vanderpool RR, Zuckerbraun BS, Champion HC, Mora AL, Straub AC, Bilonick RA, Calzada MJ, Isenberg JS. TSP1-CD47 signaling is upregulated in clinical pulmonary hypertension and contributes to pulmonary arterial vasculopathy and dysfunction. *Cardiovasc Res*. (2016)

CTS

- **Anderson AJ**, Click B, Ramos-Rivers C, Babichenko D, Koutroubakis IE, Hartman DJ, Hashash JG, Schwartz M, Swoger J, Barrie AM 3rd, Dunn MA, Regueiro M, Binion DG. Development of an Inflammatory Bowel Disease Research Registry Derived from Observational Electronic Health Record Data for Comprehensive Clinical Phenotyping. *Dig Dis Sci*. 2016 Nov;61(11):3236-3245.
- Sidani JE, **Shensa A**, Hoffman B, Hanmer J, Primack BA. Association between social media use and eating concerns among U.S. young adults. *Journal of the Academy of Nutrition and Dietetics*. 2016;116(9):1465-72.
- Jones JR, Colditz JB, **Shensa A**, Sidani JE, Lin L, Terry MA, Primack BA. Associations between internet-based professional social networking and emotional distress. *Cyberpsychology, Behavior, and Social Networking*. 2016;19(10):601-8.
- Ng-Sueng LF, Vargas-Matos I, Mayta-Tristán P, Pereyra-Elías R, Montenegro-Idrogo JJ, Inga-Berrosipi F, Ancalli F, **Bonilla-Escobar F**, Diaz-Velez C, Gutierrez-Quezada E, Gomez-Alhach J, Muñoz-Medina CE, Sanchez-Pozo A, Vidal M. Gender Associated with the Intention to Choose a Medical Specialty in Medical Students: A Cross-Sectional Study in 11 Countries in Latin America. *PLoS One*. 2016 Aug 12;11(8):e0161000.
- Ordoñez CA, Morales M, Rojas-Mirquez JC, **Bonilla-Escobar FJ**, Badiel M, Miñán Arana F, González A, Pino LF, Uribe-Gómez A, Herrera MA, Gutiérrez-Martínez MI, Puyana JC, Abutanos M, Ivatury RR. Trauma Registry of the Pan-American Trauma Society: One year of experience in two hospitals in southwest Colombia. *Colomb Med (Cali)*. 2016 Sep 30;47(3):148-154.
- Matallana-Rhoades AM, Corredor-Castro JD, **Bonilla-Escobar FJ**, Mecias-Cruz BV, Mejia de Beldjena L. Congenital adrenal hyperplasia due to 11-beta-hydroxylase deficiency: description of a new mutation, R384X. *Colomb Med (Cali)*. 2016 Sep 30;47(3):172-175.
- Sánchez-Rentería G, **Bonilla-Escobar FJ**, Fandiño-Losada A, Gutiérrez-Martínez MI. [Citizen security observatories: tools for decision making and governability]. *Rev Peru Med Exp Salud Publica*. 2016 Jun;33(2):362-7. Spanish.
- Pacichana-Quinayáz SG, Osorio-Cuéllar GV, **Bonilla-Escobar FJ**, Fandiño-Losada A, Gutiérrez-Martínez MI. Common Elements Treatment Approach based on a Cognitive Behavioral Intervention: implementation in the Colombian Pacific. *Cien Saude Colet*. 2016 Jun;21(6):1947-56.